To: Travers, David[Travers.David@epa.gov]; Clark, Becki[Clark.Becki@epa.gov]; Grevatt,

Peter[Grevatt.Peter@epa.gov]; Green, Holly[Green.Holly@epa.gov]; Bergman,

Ronald[Bergman.Ronald@epa.gov]; Burneson, Eric[Burneson.Eric@epa.gov]; Oshida,

Phil[Oshida.Phil@epa.gov]

Cc: Lopez-Carbo, Maria[Lopez-Carbo.Maria@epa.gov]; Tingley, Kevin[Tingley.Kevin@epa.gov]

From: Allgeier, Steve

Sent: Fri 2/7/2014 4:19:03 PM

Subject: RE: Follow up Qs from today's staff meeting

Regarding the crude MCHM mixture. During the early stages of the incident it was hypothesized that pure MCHM would smell like alcohol; however, customers complained of a licorice odor. In reviewing the material safety data sheet for the crude MCHM, it was thought that the licorice odor was produced by a constituent of the mixture other than pure MCHM.

However, we learned on a call with West Virginia American Water (WVAW) that Jeff Green from Eastman informed them that the crude MCHM does not have an odorant additive. Jeff said that the odor is coming from the MCHM. Caveat – this is all second hand reports from the chemical manufacturer. We have no direct information regarding the specific source of the odor, but have no reason to doubt the information from Eastman.

From: Travers, David

Sent: Friday, February 07, 2014 11:02 AM

To: Clark, Becki; Grevatt, Peter; Green, Holly; Bergman, Ronald; Burneson, Eric; Oshida, Phil

Cc: Lopez-Carbo, Maria; Tingley, Kevin; Allgeier, Steve Subject: RE: Follow up Qs from today's staff meeting

I believe Steve Allgeier can address the 3rd bullet.

From: Clark, Becki

Sent: Friday, February 07, 2014 10:49 AM

To: Grevatt, Peter; Green, Holly; Bergman, Ronald; Burneson, Eric; Oshida, Phil

Cc: Lopez-Carbo, Maria; Travers, David; Tingley, Kevin Subject: Follow up Qs from today's staff meeting

Nancy wants to do a celebration on the hydraulic fracturing guidance. I mentioned our informal get-together with the team this week, but she didn't think that was enough, she wants to do something more formal after the FR notice goes out, and she wants to participate.

- I mentioned the ongoing assistance on the Elk River spill, which prompted questions about the status of the Duke Energy spill. I promised to send them the latest update, which I just received from Kevin Tingley (thanks, Kevin!)
- We also talked a bit about the issue of the odor threshold for the MCHM additive. Mike asked if it was possible that the additive was adhering to the pipes even though the MCHM had passed through/degraded. Didn't know the answer to that one. Eric or Phil, do we know?
- · I mentioned the public meeting on the Goliad aquifer in Texas next week. Nancy asked me for some more info on why we were doing a public meeting. Holly can you help me get back to Nancy on this question?
- Finally, Nancy handed me an article from the Pittsburgh Post-Gazette on Seneca Resources Corp. receiving federal approval to operate a new wastewater injection well in Elk County, PA. Nancy wrote a Q for Peter at the top "What criteria do we use for approving Class II wells for fracking waste?" Holly do you want to help on this one, too?

That's all. Have a great weekend!

Becki Clark, Deputy Director

Office of Ground Water and Drinking Water

U.S. EPA

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